

# [METHOD OF TREATING DIESEL EXHAUST GASES ]

## Abstract of Disclosure

A diesel exhaust treatment system and method of oxidizing NO to NO<sub>2</sub> at low temperatures are provided. The system utilizes a platinum catalyst on a zirconia-stabilized silica support which oxidizes NO in the exhaust gas to NO<sub>2</sub> and uses the NO<sub>2</sub> in an amount sufficient to oxidize particulate trapped on a particulate filter. The catalyst is preferably pre-treated at a temperature of between about 500 to 650 °C in a NO-oxygen-nitrogen mixture to increase conversion at low temperatures. The catalyst preferably includes an additional oxide component selected from the group consisting of TiO<sub>2</sub>, P<sub>2</sub>O<sub>5</sub>, WO<sub>3</sub>, B<sub>2</sub>O<sub>3</sub>, and Al<sub>2</sub>O<sub>3</sub>, or a heteropolyacid component to further increase activity at low temperatures or to decrease platinum loading at the same level of performance.